

#### 2004 GEODETIC CONTROL PROJECT

Report of Project:

Bledsoe Tapp and Riggert, Inc. was contracted in 2004 to conduct a control survey to provide State Plane Coordinates on newly established and existing points throughout Monroe County. The principal goal of this project was to determine State Plane Coordinates on Public Land Survey System corners. To develop an accurate control network this project was completed in two phases. Phase 1 of the project was establishing an accurate network of new monuments to act as the primary control for the future densification. Phase 2 of the project was utilizing the local control network created during Phase 1 to determine the State Plane Coordinates of existing Public Land Survey System corners.

Phase 1 established a network of twenty points distributed evenly throughout Monroe County. These points were primarily 30-inch long aluminum survey markers with an attached magnet placed in locations suitable for GPS observation. The controlling monuments used in the adjustment of the Phase 1 network included the HARN station located at the Grissom Municipal Airport in Lawrence County (V 281), the HARN station located at the old I.U. Skeet Range in Bloomington (BLOOMINGTON NCMN 7291), and the HARN station located 4 miles South of Martinsville along State Road 67 in Morgan County (N 13). The Indiana University Continuously Operated Reference Station in Bloomington (INDIANA UNIVERSITY CORS L1 PHASE CENTER) was also verified and accepted for use as a primary control point for this project. The Indiana High Accuracy Reference Network (HARN) stations were held fixed in the Phase 1 adjustment.

The GPS observation for this project were made with four Topcon dual-frequence receivers. All raw data was processed and adjusted using Pinnacle Post-Processing Software. All of the stations in the Phase 1 network were occupied a minimum of two times and occupation sessions were in excess of two hours per point. The minimum positional accuracy for this project was 1:100000 (10ppm). A much higher degree of accuracy was achieved throughout this project. The probable horizontal error associated with the Phase 1 control is less than 0.1'. The probable vertical error associated with the Phase 1 control is less than 0.2'. All of the data published as part of the project is referenced to NAD83 U.S. survey feet, and NAVD88.

The second phase of this project utilized the Phase 1 control point in the establishment of State Plane Coordinates on existing Public Land Survey System corners. Existing corners were recovered throughout the county and tied to State Plane Coordinates. An effort was made to evenly distribute the points throughout the county. In some parts of the county this was difficult due to the availability of corners with good sky visibility. The Phase 2 points were adjusted to the Phase 1 control points.

Corner I.D. # 100T

# MONUMENT RECORD

### STATE OF INDIANA ~ COUNTY OF MONROE

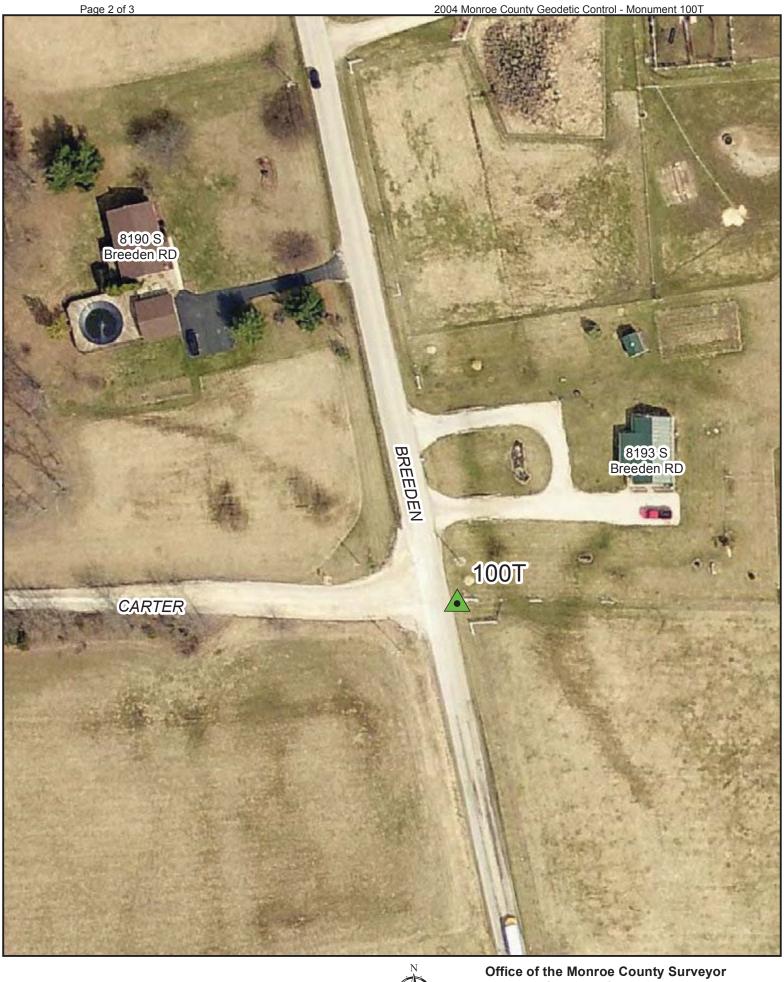
/31/2016, Rachel Savich Oser, /24/2018, Cassidy Raley, Fbk.5		Recovery 7	Tie Drawing		
Monument recovered in good o	condition	po			-
		Breeden Road			1
		Breed	Pwr.Pole	1	
	Tele. Riser a		9" ""." ""		
2		55.9.	.91		
		Noil 6 17.2	1	8	
Carter Re	bood	Nail @ 17.2	<del>T Post</del> 12" wooder	post	
·		X45.4	(painted wh	/ / /	
Sto	op Signe			7	
				N	
				N.T.S. Aluminum Mo	nument
				at Corner = 0	

I, Matthew L. Cooper, here by certify that this document was prepared under my direction in accordance with the provisions of Section 17-3-64-4 through 17-3-64-8 of the Indiana Code, being Acts of 1965, Chapter 319; this 9th day of June, 2004 A.D.

Indiana Registered Land Surveyor No. LS20200079

COMPLETED BY St. U. Fanks





200 Feet 50 100 ImageSource: 2014 Monroe County Pictometry









Corner I.D. # 101T

## MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

/31/2016, Rachel Savich Oser, Fbk. 48, pg. 7 /24/2018, Cassidy Raley, Fbk. 52, pg. 22 Ionument recovered in good condition	tic Control Survey.)
Rockport Road  Indian Creek Twp. Fire Station Bldg.	18" Catalpa
Gravel Lane  Grave	oall N.T.S.
	Aluminum Monument

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Indiana Registered Land Surveyor No. LS20200079

By Str V. Handes



ImageSource: 2014 Monroe County Pictometry







Corner I.D. # 102T

### MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

	D		-
	Recovery Tie Drav	wing	
			-
West Isom	Road		
8/31/2016, Rachel Savich Oser, Fbk. 48, pg. 6 7/24/2018, Cassidy Raley, Fbk. 52, pg. 22 Monument recovered in fair condition Aluminum cap is not properly seated on rod, rod appears solid Eastern sky is partially obstructed by treeline		+	
Wood Post w/-	5.7	N N.T.S.	
HARMON	Aluminum Mor	ument	

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200 Feet 100

ImageSource: 2014 Monroe County Pictometry











Corner I.D. # 103T

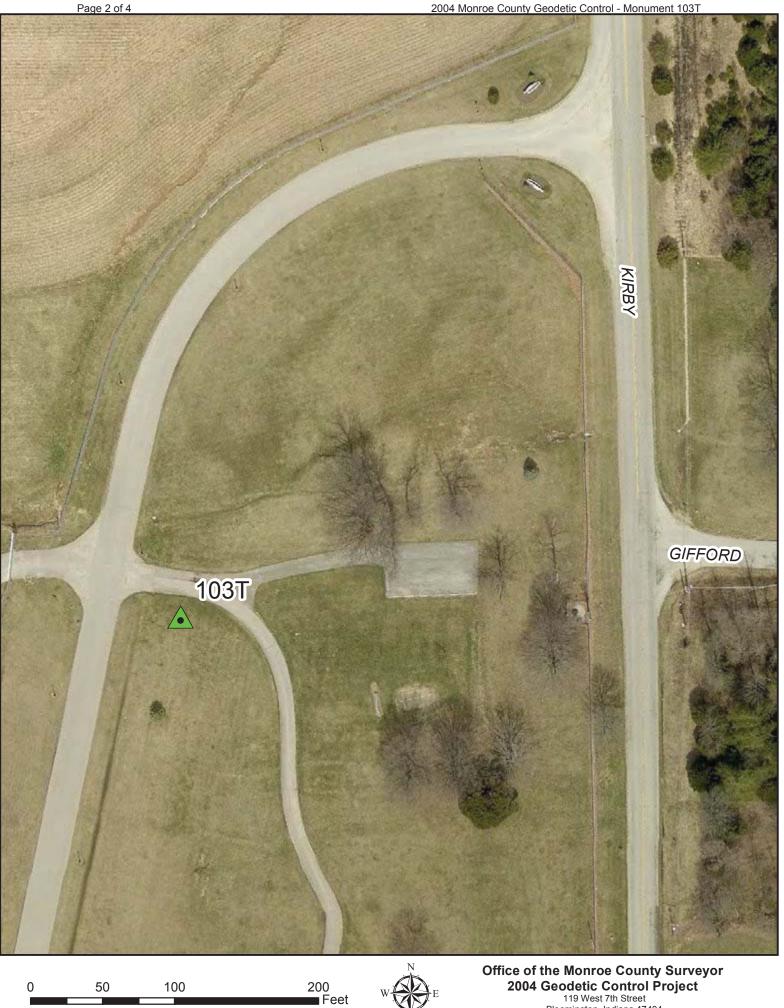
### MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

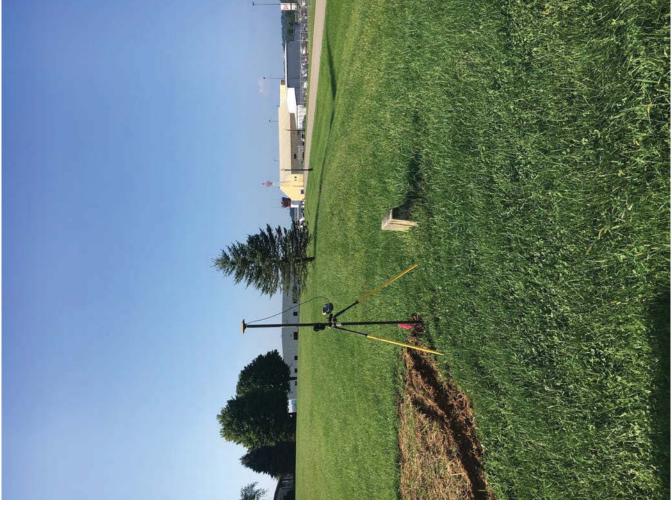
8/12/2016, Rach 7/24/2018, Cass	nel Savich Oser, Fbk sidy Raley, Fbk. 52, p	40, pg. 1	Tie Drawing	Jan	
		airport acc	Kirby Road		
imestone Ma Airport Park Monroe Co. — 970"	Jight Pole	to Airport Admin. Bldg.	Gil	N N.T.S. Aluminum Mo at Corner = •	onument

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Corner I.D. # 104T

## MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

a monament to not a 12	SS corner. It was set as part of a Ge	odetic Control Survey.)
12/2016, Rachel Savich Oser, Fbk. 48 24/2018, Cassidy Raley, Fbk. 52, pg. 3 onument recovered in good conditio	22	
onument is below a transmission line	e and is not suitable for static work	
	TARTSTRAIGHT RD.	
VERNAL PIKE	158-221-65 Pwr.Pole Stop Sign	
Fen Cor	42.8' Pwr.Pole 760-358 Cor.	N
	'	N.T.S.
	·- b.,	Aluminum Monument

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Indiana Registered Land Surveyor No. LS20200079

COMPLETED By Stu U. Fanky)

No.LS20200079 State of NO.LS20200079









Corner I.D. # 106T

# MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

8/23/2016, Rachel Savich Oser, Fbk. 48, pg. 47/25/2018, Cassidy Raley, Fbk. 52, pg. 22 Wonument recovered flush with ground, apport the whole thing is crooked	+	been disturbed. Cap is still connected to rod,	•
	446	Q Traffic Signal Pole (S. Bolt)	4
	oć vi	Fire Hydrant (N. Bolt)	N N.T.S.
		- T-	Aluminum Monument at Corner = 0

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Indiana Registered Land Surveyor No. LS20200079

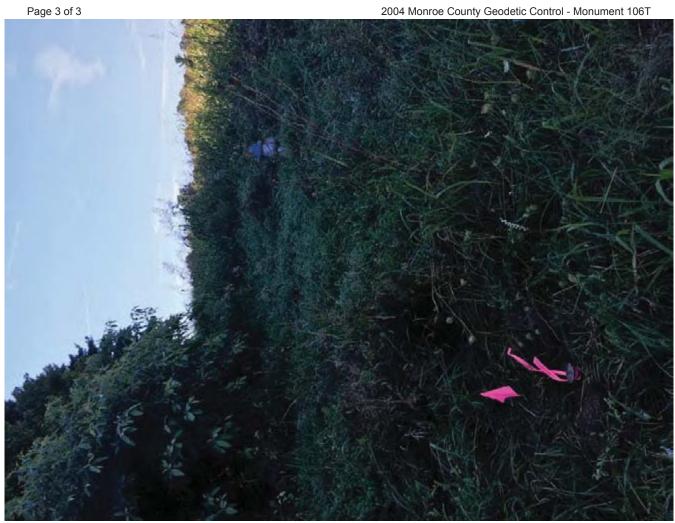
COMPLETED By Sturies



200 Feet 50 100 ImageSource: 2014 Monroe County Pictometry









Corner I.D. # 107T

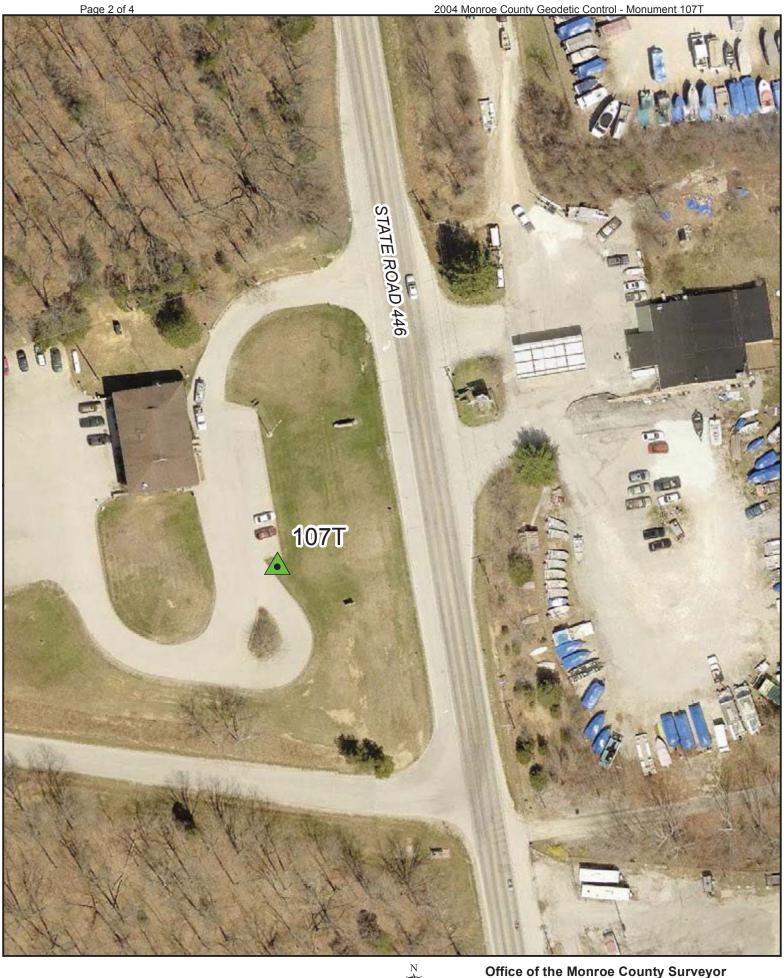
#### 8/23/2016, Rachel Savich Oser, Fbk. 48, pg. 4 7/25/2018, Cassidy Raley, Fbk. 52, pg. 22 Monument recovered in good condition, 0.2' below grade

# MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

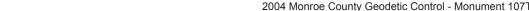
		Recovery	Tie Drawing	•
PAYNETOWN STATE RECREATION AREA BUILDING	177-3-10	lack of Curb Corner	S.R., 446	
point island	04 34 3	Fire Danger Sign (center)	vi	N.T.S. Aluminum Monument

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Corner I.D. # 108T

### MONUMENT RECORD

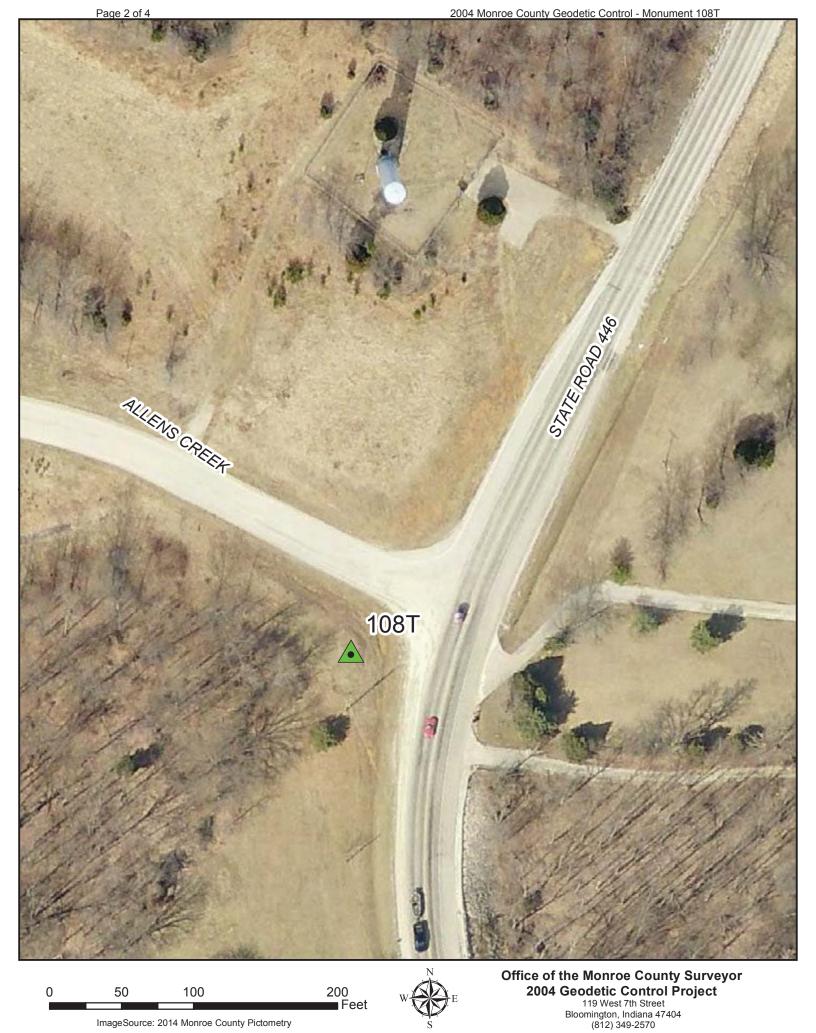
### STATE OF INDIANA ~ COUNTY OF MONROE

/25/2018, Cassid Ionument recove	I Savich Oser, Fbk. 48, pg ly Raley, Fbk. 52, pg. 22 ered in good condition, f post and Monroe County	lush with grade.	ie Drawing	
All	lens Creek Road	C/L	S.R. 446 Priv. Drive	
_	Conc. R/W Morker 9- 25	8.88	3	N N.T.S.
		b Pwr.Pole	Priv. Drive	Aluminum Monument at Corner = •

I, Matthew L. Cooper, here by certify that this document was prepared under my direction in accordance with the provisions of Section 17-3-64-4 through 17-3-64-8 of the Indiana Code, being Acts of 1965, Chapter 319; this 9th day of June, 2004 A.D.

Indiana Registered Land Surveyor No. LS20200079

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Page 1 of 3 8/31/2016, Rachel Savich Oser, Fbk. 48, pg. 7 8/23/2018, Cassidy Raley, Fbk. 52, pg. 22 Monument recovered in good condition, 0.4' below grade Added t-post and MCSO Sign

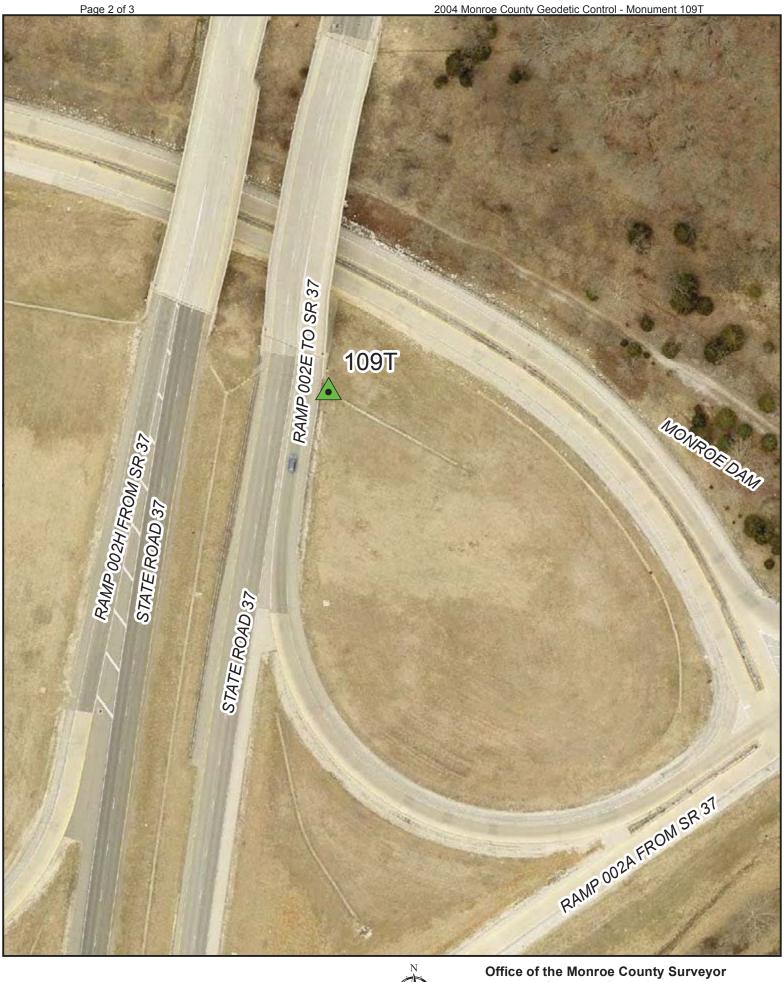
Corner I.D. # 109T

### MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

S. S		11	Recovery	y Tie Drawing	•
S.R.37 South bound North Page 1997 North Page	-		Overposs	to Mon <u>roe Lake</u> Darn	
		South bound		sy.	

I, Matthew L. Cooper, here by certify that this document was prepared under my direction in accordance with the provisions of Section 17-3-64-4 through 17-3-64-8 of the Indiana Code, being Acts of 1965, Chapter 319; this 9th day of June, 2004 A.D.





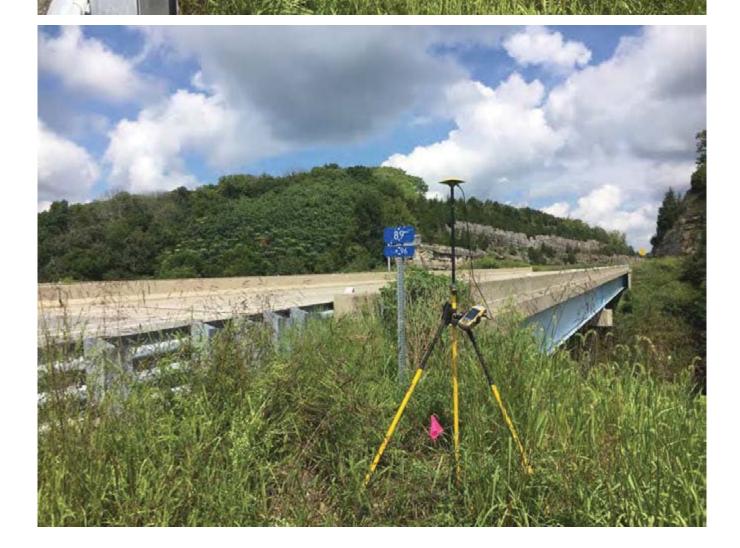
ImageSource: 2014 Monroe County Pictometry



Office of the Monroe County Surveyor 2004 Geodetic Control Project 119 West 7th Street

119 West 7th Street Bloomington, Indiana 47404 (812) 349-2570





Corner I.D. # 110T

# MONUMENT RECORD

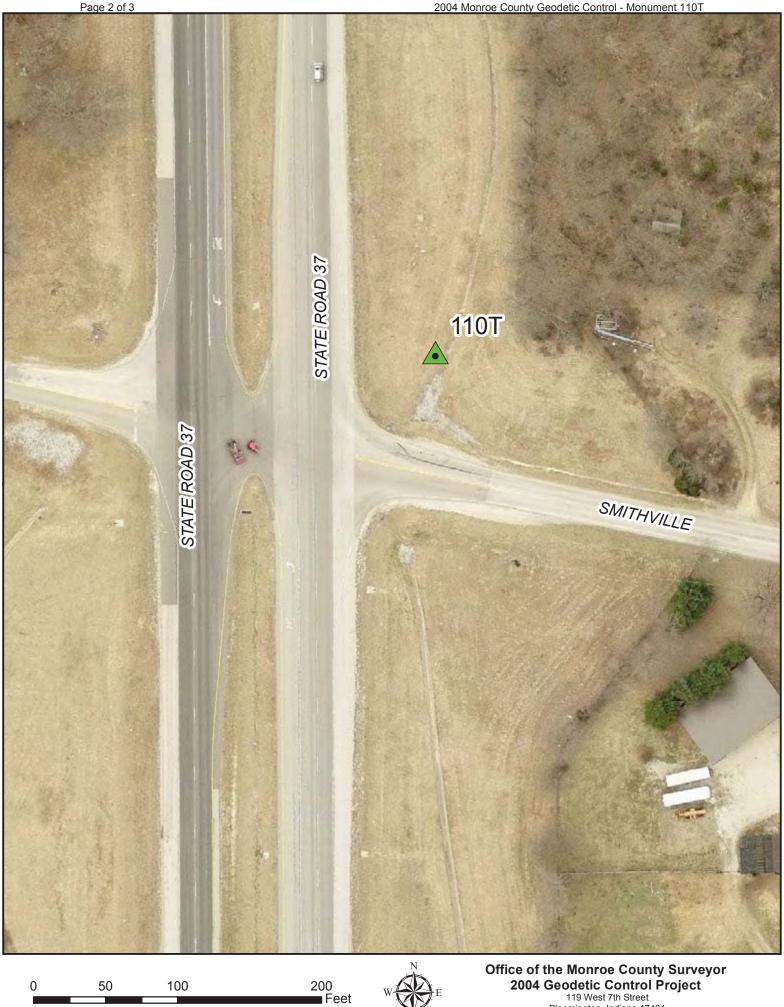
### STATE OF INDIANA ~ COUNTY OF MONROE

8/31/2016, Rachel Savich Monument recovered in g 4/6/2018, Rachel Savich C	Oser, Fbk. 48, pg. 7 good condition, flush Oser, Fbk.51, pg. 62 good condition, flush	Recovery with grade with grade. Added 5'	Tie Drawing t-post w' MCSO sign 1.1' east	
	S.R.37 South bound	S.R.37 North bound	Conc. Ditch Smithville Road	
		7	·· 41.	N.T.S. Aluminum Monument at Comer = •
State Plane Coordina Northing: 139	te (NAD83 Surve 2812.08	y Feet, Indiana We Easting:	est Zone)- 3108202.64	<b>Elev.:</b> 796.7

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Indiana Registered Land Surveyor No. LS20200079

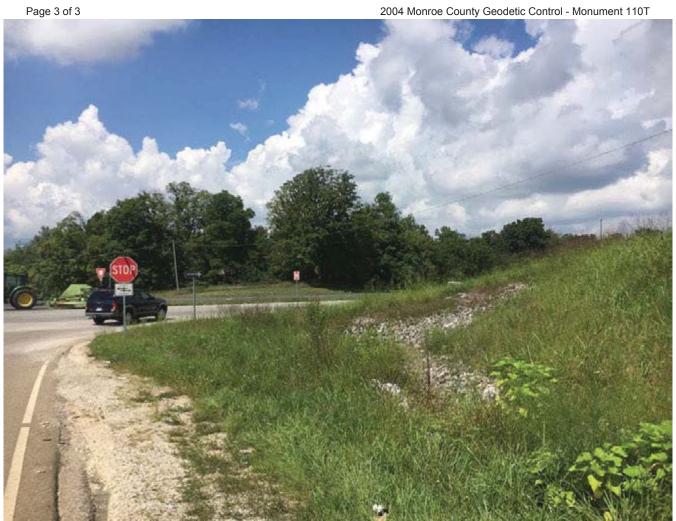
y St. V. tanker



ImageSource: 2014 Monroe County Pictometry









Corner I.D. # 111T

## MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

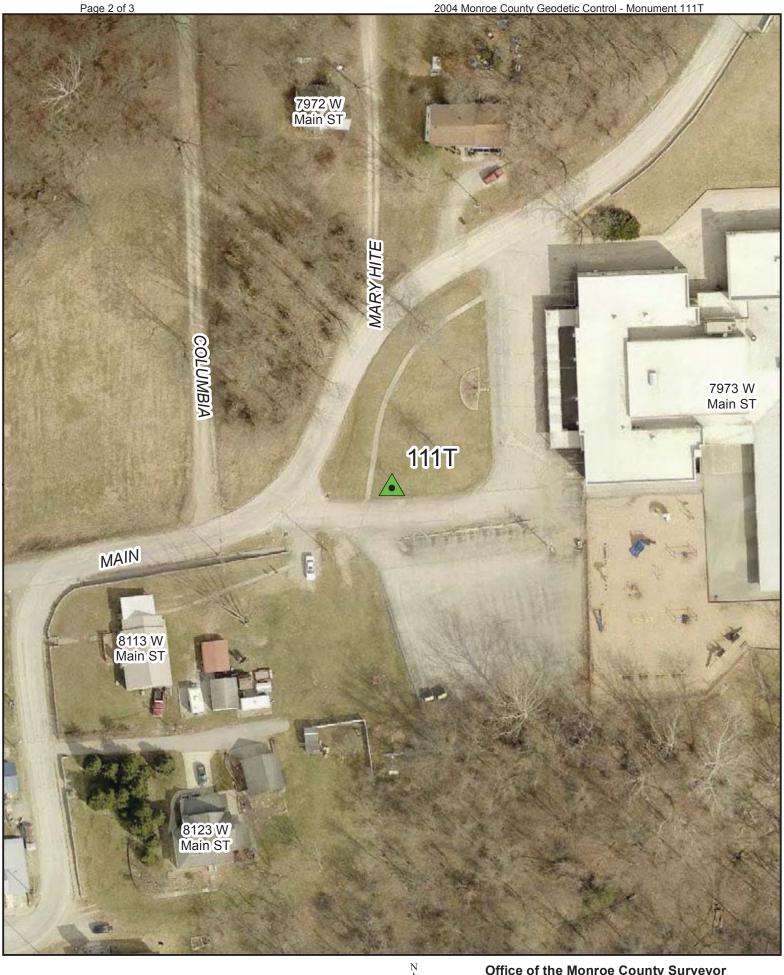
8/22/2016, Rachel Savich Oser, Fbk. 48, pg. 3  Monument recovered. Cap was not attached to the rod, which was solid in the grou Placed cap upside down on rod and replaced sod. 7/24/2018, Cassidy Raley, Fbk. 52, pg. 22	
Stinesvill Elementary School playgra	und
6"Tree Quig 6-11.6' Parking Lot	
Tobor Hill Road Edge of Conc.	- <u>_</u>
	N N.T.S.
'	Aluminum Monument at Comer = 9

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Indiana Registered Land Surveyor No. LS20200079

COMPLETED By Strutanus







ImageSource: 2014 Monroe County Pictometry









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### Corner I.D. # 113T

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## MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

1 ON

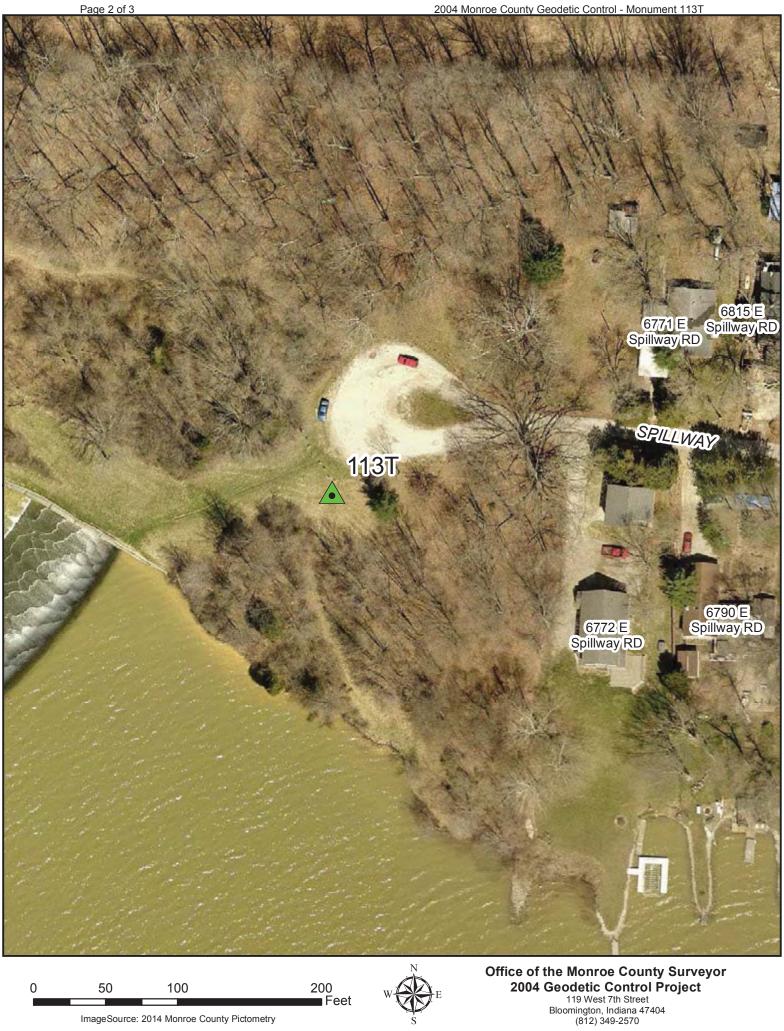
/1/2016, Rachel Savich Oser, Fbk. 48, pg.	Recovery Tie Drawing	1 212 1	i
/4/2018, Cassidy Raley, Fbk. 52, pg. 33	8	LL1	
Ionument recovered in good condition. F	lush with grade.		
_		i	•
,	25.74		į
		LJI	
\			1
	Spillway Ro	00	i
	Spillway N		
/			
e .			100
non	(gross	1	
[way o	gravel	Λ	
	parking	//	
1	ured .	Ц	
3'Tall Pipe w/ Caps	9	/• • • • •	
3'Tall Pipe w/ Caps	7.6° 23'Tall Pipe filled w/ conc.	(No cops) typ.	
1000	_7.6	N	
1000	_7.6	N n.t.s.	
1000	7.6' 3'Tall Pipe filled w/ conc.	N N.T.S. Aluminum M	
J'Tall Pipe w/ Cops 10.3.	40.2 6"Pine Tree	N n.t.s.	

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Indiana Registered Land Surveyor No. LS20200079

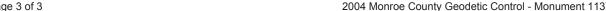
COMPLETED By St. U. tank





200 Feet 50 100 ImageSource: 2014 Monroe County Pictometry









### Corner I.D. # 115T

# MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

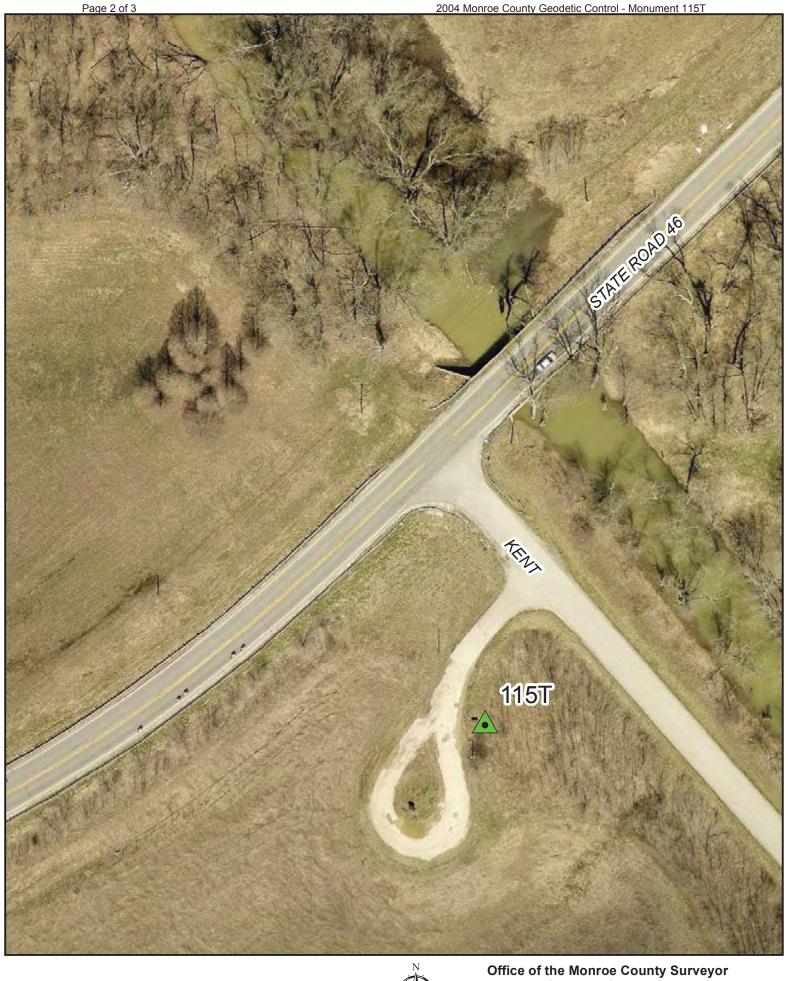
his monument is not a PLSS corner. It was set as part	
8/23/2016, Rachel Savich Oser, Fbk. 48, pg. 5  Monument recovered in good condition.  Woods have grown up around this monument. The location is no longer suitable 7/25/2018, Cassidy Raley, Fbk. 52, pg. 22	
Per.Pole grove rd.	1
Hunter Check-in Station Light Pole	N N.T.S.
114.	Aluminum Monument at Comer =

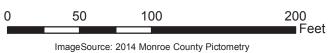
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Indiana Registered Land Surveyor No. LS20200079

COMPLETED BY ALLUTENCE













Corner I.D. # 117T

# MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

Recovery Tie Drawing  /1/2016, Rachel Savich Oser, Fbk. 48, pg. 9  /4/2018, Cassidy Raley, Fbk. 52, pg. 33  Ionument recovered in good condition  Shady Pines Picnic Area	
/4/2018, Cassidy Raley, Fbk. 52, pg. 33 Ionument recovered in good condition	
lonument recovered in good condition	
Shady Pines Picnic Area	
Shady Pines Picnic Area	
Shady Pines Picnic Area	910 1 10
`	LJLL
, c/L	
Main Forest Road	
♦ <u>55.5'</u>	Λ
9	//
Wall's Shelterhouse	Д
Swing Set	
7 3 2	Ň
, å	N.T.S.
··· j.,	Aluminum Monument at Corner = •
	at Collect — 4
orthing: 1480300.18 Easting: 3137884.91	Elev.: 921.6

I, Matthew L. Cooper, here by certify that this document was prepared under my direction in accordance with the provisions of Section 17-3-64-4 through 17-3-64-8 of the Indiana Code, being Acts of 1965, Chapter 319; this 9th day of June, 2004 A.D.

Indiana Registered Land Surveyor No. LS20200079

COMPLETED BY St. UFFanlar

No.LS20200079





2004 Geodetic Control Project
119 West 7th Street
Bloomington, Indiana 47404
(812) 349-2570







Corner I.D. # 118T

## MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

inis monument is	not d PLSS corner.	it was set as part of a	Geodetic Control Survey.)
	p was not attached to the rod, de and solid in the ground. In rod and buried.	ecovery Tie Drawing	
Baseball Field	Gravel Parking area  7.5	Sycomore Dr.	DAR Dr.  N N.T.S.
Soccer Field			Aluminum Monument at Corner = •

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Indiana Registered Land Surveyor No. LS20200079

COMPLETED By St. UHank







No.LS20200079

### MONUMENT RECORD

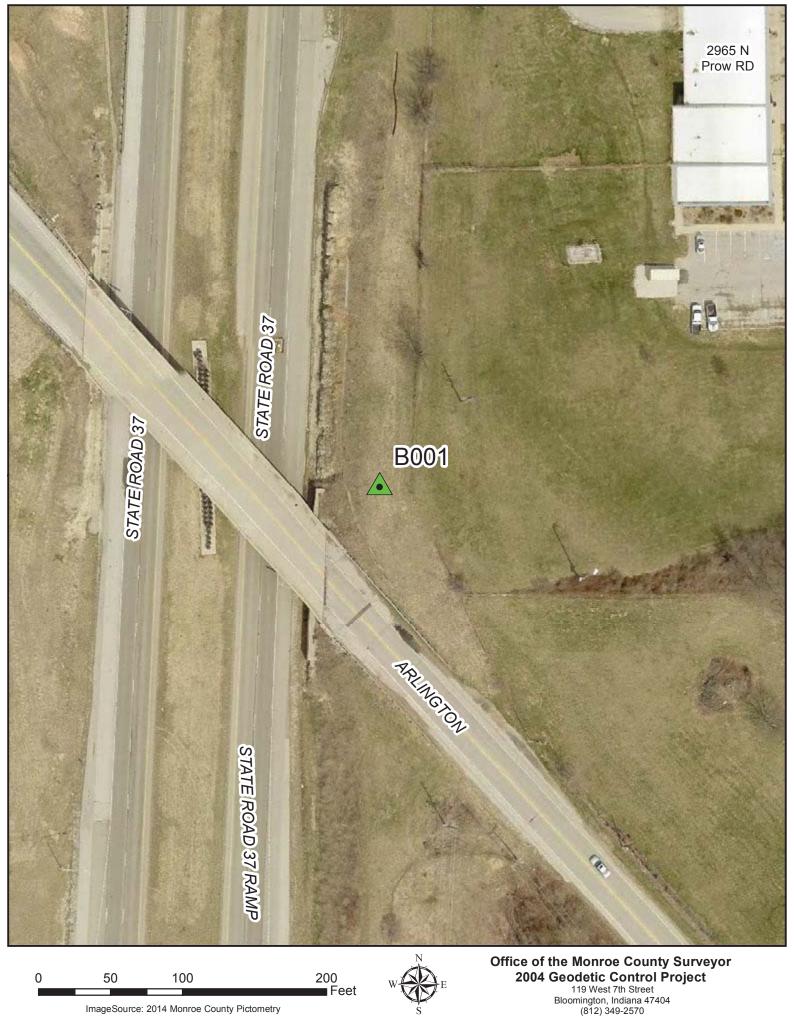
#### STATE OF INDIANA ~ COUNTY OF MONROE

9/1/2016, Rachel Savich Oser, Fbk. 48 Monument recovered in good conditi Best access is from Arlington Road (al 7/24/2018, Cassidy Raley, Fbk. 52, pg	on. ka S.R. 46)	ecovery '	Tie Drawing	
	Overpa	S.R.37 North bound	22.4	ne Marker
	South bound			N N.T.S. Brass Disk at Corner = •

I, Matthew L. Cooper, here by certify that this document was prepared under my direction in accordance with the provisions of Section 17-3-64-4 through 17-3-64-8 of the Indiana Code, being Acts of 1965, Chapter 319; this 9th day of June, 2004 A.D.

Indiana Registered Land Surveyor No. LS20200079

COMPLETED BY Ste U Failer



ImageSource: 2014 Monroe County Pictometry



Corner I.D. # B016 Bloomington NCMN 7291

### MONUMENT RECORD

#### STATE OF INDIANA ~ COUNTY OF MONROE

Stamped "Horizontal Control Mark The D
sh with ground National Geodetic Survey Bloomington N
of a Geodetic Control Survey.)
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1
4
N
N.T.S.
Bras Disk at Comer = ●
63.50 <b>Elev.:</b> 827.4
i

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Indiana Registered Land Surveyor No. LS20200079

COMPLETED BY St. U. Fanks

No.LS20200079



200 Feet 50 100 ImageSource: 2014 Monroe County Pictometry





1,000 Feet 250 500 ImageSource: 2014 Monroe County Pictometry





